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Impact of Migrants' Remittances on Economic Growth compared to other foreign capital flows in Algeria

Standard study of 1990_2022 period using ARDL's self-degradation method

Nour Elhouda Tahir [(1)] *. Karima Farhi [(2)] Ali Lamri[(3)]

[(1)] [(2)] [(3)] Akli Mhand Oulhadj University, Bouira, Region laboratory, entrepreneurship and innovation (Algeria),

n.tahir@univ-bouira.dz[(1)] k.farhi@univ-bouira.dz[(2)] a.lamri@univ-bouira.dz[(2)]

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Abstract:

This study seeks to assess the impact of migrant remittances on Algeria's economic growth in comparison to other external financing sources. It utilizes annual data from 1990 to 2022, employing the ARDL cointegration method. The findings reveal a short-term relationship between foreign capital flows and Algeria's economic growth. Specifically, migrants' remittances that are one year late have a moral impact on economic growth, as opposed to loans that have been adversely affected.

Keywords: remittances; foreign direct investment; external loans; foreign aid; economic growth.

1. INTRODUCTION

Economic development is a key concern for both developed and developing nations. Achieving economic development requires a substantial and suitable rate of economic growth. As a result, economic growth has become the primary metric for assessing a

* Corresponding author.

country's progress and advancement.

Many countries, particularly developing ones, struggle with inadequate domestic capital to fund their development programs, necessitating the use of foreign capital to bridge the resource gap and enhance capital accumulation rates, thereby influencing optimal economic growth rates.

Algeria is one of the developing countries aiming to enhance its economic growth by increasing the influx of foreign capital, particularly through migrant remittances. This raises the following issue:

How do migrants' remittances affect economic growth compared to other external sources of financing in Algeria?

2. Review of literature

Several studies have explored the impact of international capital flows on economic growth in different countries.

• The study by Hassiba Madani, Fouad Medjnah, and Assia Yessaad [(1)] focuses on evaluating the impact of foreign capital flows on economic growth in Algeria. Utilizing the Autoregressive Distributed Lag (ARDL) time series regression model, the analysis covers the period from 1972 to 2021. The findings indicate a positive effect of both foreign direct investment and migrant remittances on real GDP. Conversely, external loans have a negative impact on real GDP, which may be attributed to the misallocation of these loans, with a significant portion being directed toward non-productive sectors, ultimately hindering long-term economic growth in Algeria.

• In a study conducted by Melakhessou Bilal focusing on Algeria from 1990 to 2010, the researcher investigates whether foreign debt negatively affects the country’s economic growth during

(1) . Madani, H., Medjenah, F., & Yessaad, A. Assessment of the impact of foreign capital flows on economic growth in Algeria. Journal of Innovations and Sustainability, 07(03), (2023).

this period. The primary conclusion of the study is that external debt indeed has a detrimental impact on Algeria's economic growth throughout the analyzed timeframe.

• The study by Zohra Djalab and Ali Naas Said (2023) explored the impact of international capital flows on economic growth in Algeria from 1990 to 2018. Their findings revealed that, with the exception of foreign direct investment, none of the channels of international capital flows were statistically significant in either the short or long run.

3.Definition of foreign capital inflows

3.1 REMITTANCES

According to the IMF's sixth edition, remittances are defined as household income from foreign economies, primarily resulting from the temporary or permanent migration of individuals to those economies. Remittances encompass both cash and non-cash items that are transmitted through formal channels, such as electronic transfers, as well as informal channels, such as money or goods carried across borders [(2)].

Remittances play a crucial role as a financial inflow in many developing countries. Recently, the amounts sent home to these nations, including Malaysia, have surged significantly, often surpassing official development assistance and other capital inflows. Consequently, it’s no surprise that remittances have garnered considerable interest from researchers and economists.

3.2 Foreign Direct Investment

The OECD defines foreign direct investment (FDI) as a situation where an entity based in one economy (the "direct investor") acquires

(2) . Monetary Fund International. Balance Of Payments and International Investment Position Manual, Sixth Edition (BPM6), (2009). P 272.

a lasting interest in an entity located in a different economy (the "direct investment enterprise") [3].

3.3 Official Development Assistance

Official Development Assistance (ODA) is defined by the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) as financial flows that are concessional in nature, provided by official agencies to eligible countries, territories, or multilateral development institutions, with the primary goal of promoting economic development and improving welfare in developing nations [4].

ODA flows include contributions from donor government agencies, both bilateral (to developing countries) and to multilateral institutions [5].

3.4 EXTERNAL LOANS

External loans serve as a means to close the gap between government expenditures and revenues. They are used not only for budgetary support but also to encourage investment in recipient countries. These loans refer to funds borrowed by a country from entities outside its borders. Typically, this debt is used domestically to finance various projects or initiatives without directly involving local production, citizens, corporations, or individuals. It represents the total obligations owed to external sources, such as foreign corporations, governments, or international financial institutions [6].

(3) . BOUYACOUB, B. Factors of attractiveness of foreign direct investments (FDI) in Algeria during the period 2000 - 2022: "An empirical study using the ARCH and GARCH approach ". Economics Financial Banking & Management Journal, 12(01), (2023), p 782.

(4). Development Assistance. Récupéré sur https://www.diplomatie.gouv.fr/en/french-foreign-policy/development-assistance/, (19/07/2024).

(5) . ESCCWA, U. N. Official development assistance (ODA). récupéré sur https://www.unescwa.org/sd-glossary/official-development-assistance-oda, (13/09/2024).

(6) . Madani, H., Medjenah, F., & Yessaad, A. op.cit, p08.

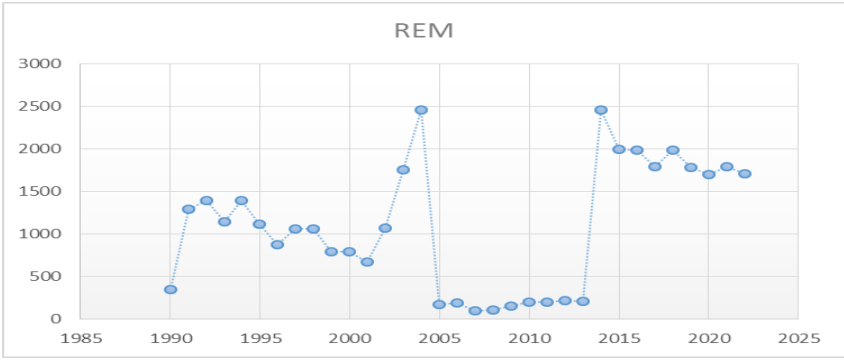
4. Economic Growth

Economic growth is defined as an increase in the total quantity of goods and services produced by an economy over an extended period. This growth can pertain to a nation's economy or other geographical, political, and social units, such as regions, cities, or demographic groups. It can also encompass a group of nations or the global economy as a whole [(7)].

5.The impact of foreign capital inflows on economic growth: We will try to analyse the evolution of the structure of foreign capital flows and economic growth into Algeria during the period 1990-2022.

5.1 Migrants' remittances

Fig.1. Migrants Remittances in Algeria during the period (1990_2022)



Source: prepared based on World Bank data

Migrants' remittances showed fluctuating trends between 1990 and 1999, influenced by various economic reforms supported by international organizations, as well as social factors like high unemployment and poverty. These conditions led to increased

(7) . Melakhessou, b. The impact of Algeria's external debt on economic growth. Industrial Economics Review, 11(02), (2021), p 401.

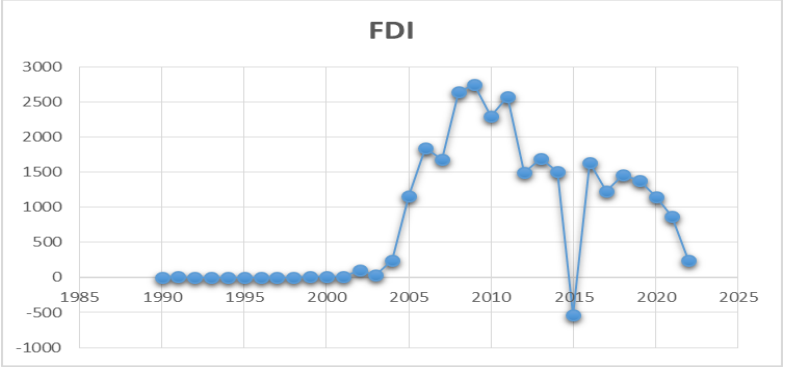
remittances aimed at supporting social needs, alongside a rising number of migrants due to instability and insecurity.

At the start of the new millennium, remittances reached their lowest point in 2001 but gradually increased until 2004. However, from 2005 to 2013, they generally declined due to improved economic and financial conditions, driven by increased oil prices and the return of many migrants to Algeria following better political and security situations. From 2014 to 2022, remittances stabilized at around 2 billion $.

5.2 Foreign direct investment (FDI)

the FDI flows continue to be an important source of external finance for developing economies compared with other cross-border capital flows [8].

Fig.2. Foreign Direct Investment in Algeria during the period (1990_2022)



Source: prepared based on World Bank data

Through the shape we note that Between 1990 and 2022, foreign direct investment flows in Algeria underwent significant changes. At the start of this period, Algeria was not an attractive destination for foreign investors due to various factors, including the

(8). UNCTAD, World investissment, (2023), p10.

prevailing economic and political climate, which was unfavorable to such investments.

Starting in 2000, the volume of foreign direct investment in Algeria improved considerably compared to earlier years, showing an upward trend until 2011. This increase was driven by the gradual enhancement of security and political conditions, along with the stabilization of economic and social circumstances.

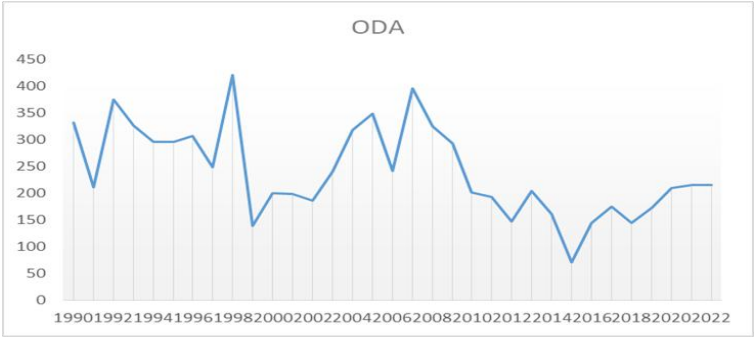
After 2011, foreign investments in Algeria began to decline, largely due to the security situation in Arab countries and concerns related to the Arab Spring. Following 2012, this decline was exacerbated by the implementation of the 49/51 rule (as part of the 2009 Supplementary Finance Act), which mandated that a national investor must hold at least 51% of any project involving a foreign partner. The year 2015 marked a particularly challenging period, with foreign investment plummeting to a negative figure of -585 million $, driven by falling oil prices.

At the beginning of 2016, foreign direct investment flows in Algeria increased by about 1638 million $ due to improved investment policies and high oil prices, and this increase continued until 2018.

Starting in 2019, the volume of foreign direct investment in Algeria declined to reach about 240 million $ in 2022, compared to 869 million $ in 2021.

5.3 Development assistance

Fig.3. Development Assistance in Algeria during the period (1990_2022)

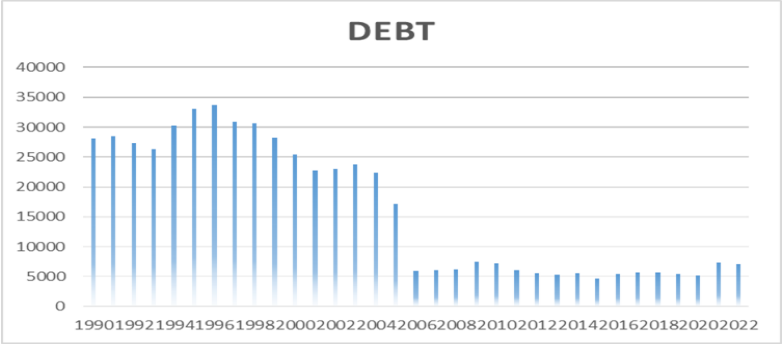


Source: prepared based on World Bank data

The data indicates that the volume of foreign assistance reached 331 million $ in 1990, peaking at approximately 420 million $ in 1998. However, it decreased to 137 million $ in 1999. Following the Millennium Goals Conference, where developed countries pledged to enhance development assistance to developing nations, foreign aid began to rise again, reaching over 394 million $ in 2007. This was followed by a decline to about 147 million $ in 2012. In 2017, there was a slight increase to around 174 million $, and aid continued to rise after 2019, largely due to the impacts of the coronavirus pandemic. And its value in 2022 reached about 214 million $.

5.4 External loans

Fig.4. External Loans in Algeria during the period (1990_2022)



Source: prepared based on World Bank data

The data indicates that total external debt increased from 28153.91 million $ in 1990 to 30,239.37 million $ in 1994, primarily

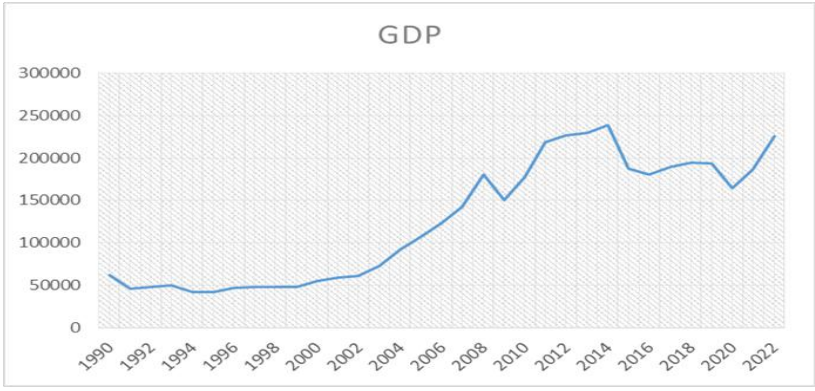
due to the country's political issues, which led Algeria to seek loans from the IMF. Low economic growth and high inflation exacerbated Algeria's debt situation, making it susceptible to debt-servicing pressures.

In early 1994, the IMF granted Algeria a loan of 260 million $ to support its balance of payments, further contributing to the rise in debt until 1996. However, 1997 marked a turning point in Algeria's external debt situation, especially with the onset of rising oil prices in 1999.

Algeria's external indebtedness continued to decrease until 2015, largely due to oil exports. However, in 2015, alongside falling oil prices, Algeria turned to debt again in 2016 and 2017, leading to an increase in external debt during those two years. From 2017 to 2022, Algeria managed to maintain low levels of external debt.

5.5 Economic growth

Fig.5. Gross Domestic Product in Algreria during the periode (1990_2022)



Source: prepared based on World Bank data

Through the figure we note that From 1990 to 2022, with the exception of 2009 and 2015, the volume of GDP continues to increase. It fell from US $180 billion in 2008 to US $150 billion in 2009 and

from approximately US $239 billion in 2014 to US $187 billion in 2015.

And a decrease in 2020 from 193 billion in 2019 to about 164 billion in 2020 due to the coronavirus pandemic.

After the year 2020, the gross domestic product increased and its value was estimated at 186.23 billion $ in 2021 and about 225 billion $ in 2022.

6. METHODS

The Distributed Lag Auto-Regressive model – "ARDL", in French called Le modèle autorégressif à retard échelonné ou distribué, was developed by Pesaran et al. (2001). The purpose of this study is to evaluate the relationship between short and long-term variables, since it is characterized by its fluidity and ease of application.

The ARDL model does not impose a stationarity of variables in the same level, unless [9]:

- All variables are stationary at Level I (0)
- All variables are stationary at first difference I (1);
- Some variables are stationary in level I (0), and others in first difference I (1)

6.1 Study the stability of time series

The unit root test is designed to analyze the properties of time series data to determine its stationarity. We will assess the stationarity of the time series data using the Augmented Dickey-Fuller (ADF) test[10], and the results of this test are summarized in Table 1.

(9). Lamzihri, O., & El Kamli, M. Estimation de la loi d'Okun avec le modèle ARDL. International Journal of Accounting, Finance, Auditing, Management and Economics - IJAFAME, 02(05), (2021), p 685.
(10). Madani, H., Medjenah, F., & Yessaad, A. op.cit, p 10.

Table 1. Results of the unit root test using the Augmented Dickey-Fuller (ADF)

Variable	Model		Level		First Difference		Integration level
			Prob	Decision	Prob	Decision	
GDP	III	Trend	0.0455	Unstable	0.7946	Stable	**I (1)**
		Constant	0.5523		0.6286		
		Unit Root	0.5648		0.0032		
	II	Constant	0.3114		0.1338		
		Unit Root	0.9068		0.0005		
	I	Unit Root	0.9283		0.0001		
REM	III	Trend	0.5433	Unstable	0.7051	Stable	**I (1)**
		Constant	0.1541		0.8013		
		Unit Root	0.2348		0.0000		
	II	Constant	0.0208		0.8562		
		Unit Root	0.0884		0.0000		
	I	Unit Root	0.2411		0.0000		
FDI	III	Trend	0.5128	Unstable	0.3754	Stable	**I (1)**
		Constant	0.6832		0.3916		
		Unit Root	0.5724		0.0000		
	II	Constant	0.1665		0.8768		
		Unit Root	0.2657		0.0000		
	I	Unit Root	0.1331		0.0000		
ODA	III	Trend	0.0396	Unstable	0.9452	Stable	**I (1)**
		Constant	0.0007		0.9992		
		Unit Root	0.0095		0.0000		
	II	Constant	0.0029		0.8925		
		Unit Root	0.0139		0.0000		
	I	Unit Root	0.4289		0.0000		
DEBT	III	Trend	0.3644	Unstable	0.6944	Stable	**I (1)**
		Constant	0.3904		0.4234		
		Unit Root	0.8948		0.0338		
	II	Constant	0.9268		0.3299		
		Unit Root	0.7933		0.0074		
	I	Unit Root	0.0866		0.0007		

Source: prepared based on the output of EViews 13.

After conducting unitary root tests for the stability of time series in the level, we found that all series are unstable in the level, but rather they stabilized only after making the first difference and thus within I (1).

6.2 Selecting the optimal lag periods for the variables included in the estimation of an ARDL mode

To determine the optimal lag lengths, the Akaike Information Criterion (AIC) was employed, where the optimal model takes the lower value of the standard, and based on the outputs of the Eviews13 program the best slowing model is ARDL (3,1, 2, 0, 4) shown in the next table.

Table 2. Results of the optimal lag length test

The ARDL model	**p**	**P1**	**P2**	**P3**	**P3**
The optimal lags according to the AIC criterion	3	1	2	0	4

Source: prepared based on the output of EViews 13.

6.3 Test of the validity of an ARDL model

Before adopting the optimal ARDL model, its validity must be tested to ensure the accuracy and reliability of the results, for which a number of tests will be performed that will present its conceptual side and then give its results in table 03.

• Autocorrelation test of errors: It is important that the errors in this model are independent and to ensure the absence of autocorrelation of errors, the Breush and Godfrey test can be used.

• Heteroscedasticity test: This assumption is one of the essential assumptions of linear models. Residues are called heteroscedastic if they do not have the same variance (homocedasticity of errors), to check whether the residues are heteroscedastic or homoscedastic one can use the test.

•The test of "JarqueBera" (1984), based on the notion of Skewness (asymmetry) and Kurtosis (flattening), allows to verify the normality

of a statistical distribution" (11).

• Model stability test: The structural stability of the estimated parameters for the error correction form of the distributed lag autoregressive model is achieved if the graphical representation of both the CUSUM and CUSUM of Square tests falls within the critical limits at a significance level of 5 %. In other words, if the error curve falls within the range of two standard deviations (2SE), then we reject the null hypothesis H0 at a significance level of 5 % that the parameters are stable throughout the study period (12).

These tests are summarized in Table 3.

Table 3. Results of the residual analysis of the model

Diagnostic tests for the model			
TEST	**Type of test**	**F-Statistics**	**Probability**
Test LM	**Autocorrelation test**	2.661881	(0.1105)
Test Breusch-Pagan-Godfrey	**Heteroscedasticity test**	0.236273	(0.9946)
Test Jarque-Bera	**Normality test**	0.667790	(0.716129)
TEST CUSUM	**Model stability test**	stable	
TEST CUSUMSQ		stable	

Source: prepared based on the output of EViews 13.

From the table above it can be seen that:

• Through the LM test we note that the probability of testing is greater than 5% and therefore it can be said that there is no self-correlation of the protectors.

(11). BENYACOUB, B., & ES-SALMANI, M. Modélisation ARDL, test de cointégration aux bornes pour la vérification de la soutenabilité de la dette publique au Maroc. Revue Internationale du Chercheur, 02(04), (2021). P 17.
(12). SEBAHI, D., & GANA, B. les déterminants à court et à long terme de l'évolution du solde courant Algérien: étude économétrique via le modele ARDL. Les Cahiers du Cread, 38(02), (2022), p 216.

• We also note that the probability of testing the heteroscedasticity of errors is greater than 5% and therefore it can be said that there is a homogenization of the contrast of error limits.

• Jarque-Bera test results confirm that the residues follows normal distribution because the probability of testing is greater than 5%.

In order to ensure that the data used in this study is free of any structural changes, it is necessary to use one of the appropriate tests, such as the cumulative sum of the recursive residuals (CUSUM), and the cumulative sum of the squares of the recursive residuals (CUSUM of Square) [13]. Through the outputs of the Eviews13 programme described in appendix (05) We note that the cumulative total line of the preservatives and the obliterations squares are located within critical boundaries and therefore we reject the hypothesis of structural change in the data, and therefore can to say that there is stability and consistency of the model's parameters between the long and short term.

6.4 The Bounds Test

The Bounds Test is designed to determine whether there is evidence of a long-term relationship between variables by testing the null hypothesis that there is no long-term relationship between the variables under study [14].

The results of this test are presented in Table 4.

Table 4. Bounds test results

F-statistics	Significance level	Bound Critical Values	
		I (0)	I (1)
4.868440	1%	4.280	5.840
	5%	3.058	4.223

(13). Madani, H., Medjenah, F., & Yessaad, A. op.cit, p 11.
(14). Ibid. p 11.

	10%	2.525	3.560

Source: prepared based on the output of EViews 13.

The F-statistic for the Bounds Test is 4.868440, which is greater than critical values I (0) and I (1) at the 05% level. Consequently, we reject the null hypothesis that there is no long-term relationship between the variables and we accept the reverse hypothesis that indicates the existence of Long-term relationship between study variables.

6.5 The estimations of the long-term parameters

The results of the estimation of the long-term parameters are shown in Table 5.

Table 5. The estimation of the long-term parameters

Independent variables	Parameters	t-statistic	Prob
FDI (-1)	-23.59244	-1.759307	0.0913
REM (-1)	-33.49113	-2.392578	0.0249
ODA	94.15587	1.215844	0.2359
DEBT (-1)	-8.490854	-7.424430	0.0000
C	311346.2	8.464941	0.0000

Source: prepared based on the output of EViews 13.

We note that all the parameters of the model are moral except subsidies because their probability is less than 5%, and therefore it can be argued that delays of independent variables (DEBT,.....) are affecting economic growth (GDP) in the long term.

6.6 Estimations the short-run parameters and the error correction model

The results of the estimation of the short-run parameters and the error correction model are shown in Table 6.

Table 6. Short-term parameter estimates and error correction term

Independent variables	Parameters	t-statistic	Prob
D (GDP (-1))	0.384218	2.518495	0.0209

D (GDP (-2))	-0.231054	-1.799021	0.0879
D (FDI)	0.867044	0.189803	0.8515
D (REM)	1.451033	0.366487	0.7181
D (REM (-1))	11.67001	2.173852	0.0426
D (DEBT)	-3.545244	-3.057367	0.0065
D (DEBT (-1))	6.129274	4.759912	0.0001
D (DEBT (-2))	1.634727	1.318042	0.2032
D (DEBT (-3))	5.191325	4.477489	0.0003
COINTEQ*	-0.778291	-6.296270	0.0000

Source: prepared based on the output of EViews 13.

Through the table we note that:

- the error correction coefficient is negative and statistically moral indicating a long-term balance between economic growth and independent study variables.
- Since the error correction parameter (-0.778291) means that when economic growth deviates from its long-term equilibrium value, 77.82 per cent of this deviation is corrected in the period t, i.e. the imbalance corrects each year by 77.82 per cent.
- The absence of a statistical moral impact of both FDI and migrants' remittances on economic growth in the current period.
- There is a moral adverse impact of loans on economic growth in the current period, where the higher the lending by one unit, the lower the economic growth by 3.54 units.
- The moral positive impact of loans on economic growth in t-1 and t-3, where the higher FDI in one unit, the higher the economic growth of 6.12 and 5.19 units, respectively.
- The moral positive impact of migrants' remittances on economic growth in T-1, where the higher migrants' remittances in one unit, thehigher the economic growth by 11.67 units.

7. CONCLUSION

This paper examined the impact of migrants' remittances on economic growth compared to other foreign sources of financing in Algeria during the 1990_2022 period using the self-declining method

of time gaps distributed by ARDL. The following results were achieved:

•The weak positive moral impact of migrants' remittances on economic growth in T-1 because such remittances are often sent through informal channels in addition to being exploited for personal consumption and demand for imported goods, which effecting on economic growth but a weak proportion.

•The negative moral impact of loans on economic growth owing to the lack of optimal utilization of these loans is not directed at real investments and development projects, rather than being a driver of economic growth that turns into the burden of interest payments and debt servicing.

Based on the findings, we note that remittances of migrants are an important source of economic growth as a foreign capital flow. However, this source has not received good attention in Algeria because it flows through informal channels and is directed towards personal consumption and demand for imported materials. It is therefore a waste of wealth. We therefore propose the following recommendations:

•Reform and develop Algeria's financial system in order to increase the country's capacity to mobilize the savings of migrants and direct them towards real investment.

•Reduce the cost of transferring migrants' financial flows.

•To sensitize recipients to these flows on their use in real investments and their use in the acquisition of the local product rather than the imported products.

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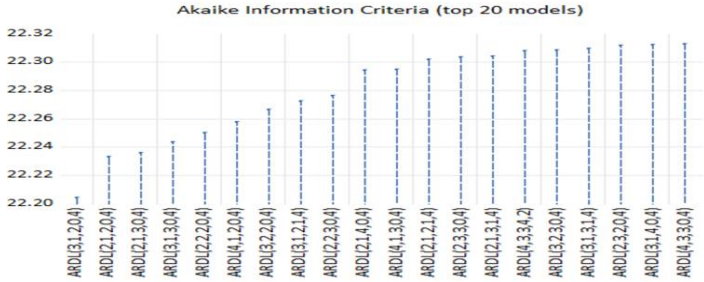
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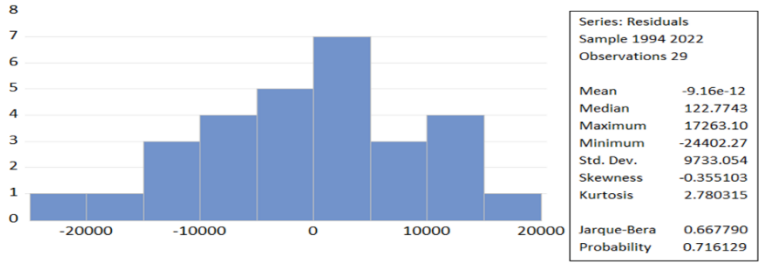
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8. APPENDIX

APPENDIX 01: the optimal lag length selection for the dependent variable and the independent variables (p, p1, p2, p3, p4).



APPENDIX 02: Normality test



APPENDIX 03: Breusch-Godfrey Serial LM Test

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

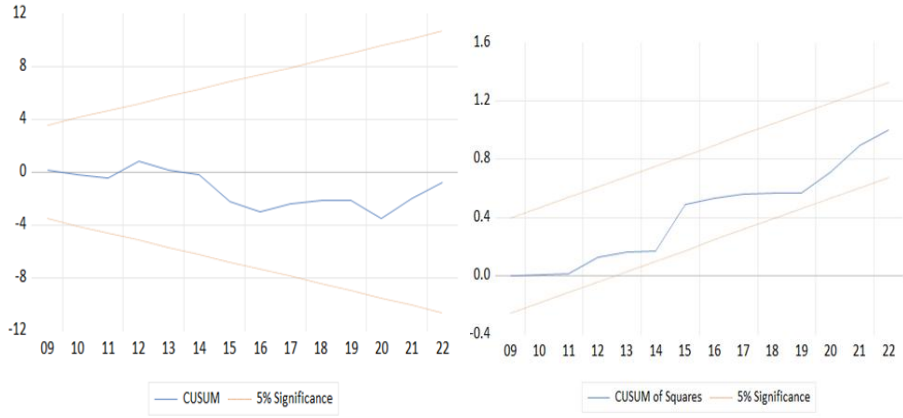
F-statistic	2.661881	Prob. F(2,12)	0.1105
Obs*R-squared	8.911985	Prob. Chi-Square(2)	0.0116

APPENDIX 04: Heteroskedasticity Test

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	0.236273	Prob. F(14,14)	0.9946
Obs*R-squared	5.542392	Prob. Chi-Square(14)	0.9767
Scaled explained SS	1.149805	Prob. Chi-Square(14)	1.0000

APPENDIX 05: Cusum and Cusum of Squares Test



APPENDIX 06: Bounds Test

Bounds Test

Null hypothesis: No levels relationship
Number of cointegrating variables: 4
Trend type: Rest. constant (Case 2)
Sample size: 29

Test Statistic	Value
F-statistic	4.868440

Bounds Critical Values

	10%		5%		1%	
Sample ...	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
30	2.525	3.560	3.058	4.223	4.280	5.840
Asymptotic	2.200	3.090	2.560	3.490	3.290	4.370

* I(0) and I(1) are respectively the stationary and non-stationary bounds.

APPENDIX 07: The estimation of the long-term parameters

Cointegrating Specification

Deterministics: Rest. constant (Case 2)

CE = GDP(-1) - (-23.592439*FDI(-1) - 33.491135*REM(-1) + 94.155872 *ODA - 8.490854*DEBT(-1) + 311346.243508)

Cointegrating Coefficients

Variable *	Coefficient	Std. Error	t-Statistic	Prob.
FDI(-1)	-23.59244	13.41007	-1.759307	0.0913
REM(-1)	-33.49113	13.99793	-2.392578	0.0249
ODA	94.15587	77.44074	1.215844	0.2359
DEBT(-1)	-8.490854	1.143637	-7.424430	0.0000
C	311346.2	36780.68	8.464941	0.0000

Note: * Coefficients derived from the CEC regression.

APPENDIX 08: Estimating the short-run parameters and the error correction

Error Correction

Dependent Variable: D(GDP)
Method: ARDL
Date: 03/04/25 Time: 22:46
Sample: 1994 2022
Included observations: 29
Dependent lags: 4 (Automatic)
Automatic-lag linear regressors (4 max. lags): FDI REM ODA DEBT
Deterministics: Restricted constant and no trend (Case 2)
Model selection method: Akaike info criterion (AIC)
Number of models evaluated: 2500
Selected model: ARDL(3,1,2,0,4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
COINTEQ*	-0.778291	0.123611	-6.296270	0.0000
D(GDP(-1))	0.384218	0.152559	2.518495	0.0209
D(GDP(-2))	-0.231064	0.128433	-1.799021	0.0879
D(FDI)	0.867044	4.568115	0.189803	0.8515
D(REM)	1.451033	3.959303	0.366487	0.7181
D(REM(-1))	11.67001	5.368356	2.173852	0.0426
D(DEBT)	-3.545244	1.159574	-3.057367	0.0065
D(DEBT(-1))	6.129274	1.287687	4.759912	0.0001
D(DEBT(-2))	1.634727	1.240269	1.318042	0.2032
D(DEBT(-3))	5.191325	1.159428	4.477489	0.0003

R-squared	0.758024	Mean dependent var	6058.375
Adjusted R-squared	0.643404	S.D. dependent var	19786.24
S.E. of regression	11815.48	Akaike info criterion	21.95901
Sum squared resid	2.65E+09	Schwarz criterion	22.33049
Log likelihood	-306.9556	Hannan-Quinn criter.	22.00667
F-statistic	6.613361	Durbin-Watson stat	2.306779
Prob(F-statistic)	0.000279		

* p-values are incompatible with t-Bounds distribution.